

## ABSTRACT OF THE DISCLOSURE

A method of determining the performance of a microprocessor during execution is disclosed. The method is implemented using a microprocessor, an instruction counter and a cycle counter. First, the microprocessor is triggered into an emulation mode. The instruction counter and the cycle counter are reset to zero. Assessment points are set up into a breaking point register in a CPU when a performance measurement of the microprocessor needs to be determined. The microprocessor jumps from the circuit emulation mode into a normal operating mode and then executes a series of program instructions. The instruction counter increments by one when an instruction is executed. Similarly, the cycle counter increments by one when one cycle of timing pulse is traversed. When the assessment point is encountered during instruction execution, the microprocessor jumps from the normal operating mode back into the circuit emulation mode. The values inside the instruction counter and the cycle counter are read. Microprocessor performance is evaluated by dividing the value inside the cycle counter by the value inside the instruction counter. Either the value inside the instruction counter reaches its upper value or the value inside the cycle counter reaches its upper value, the microprocessor jumps from the normal operating mode back to the circuit emulation mode. After the microprocessor performance is evaluated, the microprocessor jumps into the normal operating mode again until all instructions are executed or another assessment point is encountered.